



ATLAS

WEATHERING SERVICES GROUP

Latitude 33° 54' North, Longitude 112° 08' West, Elevation 610 (m)



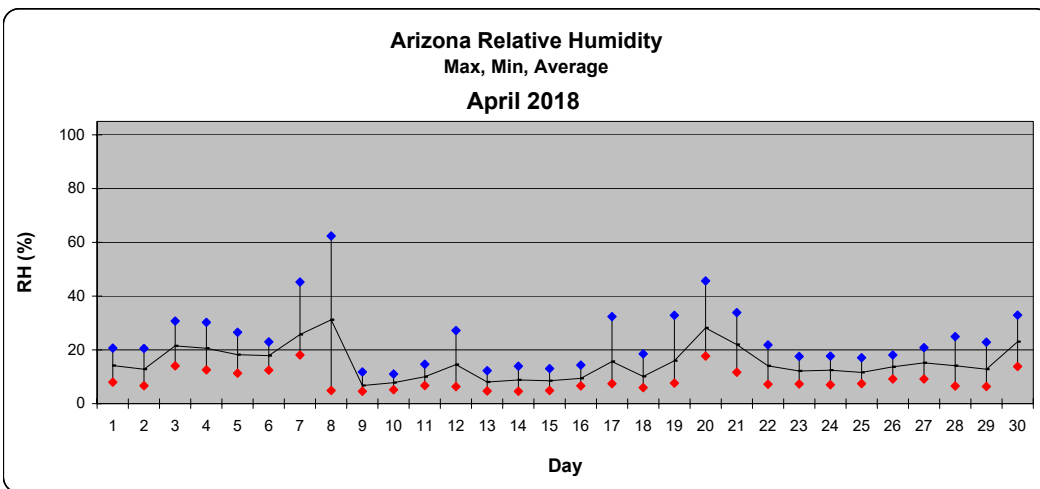
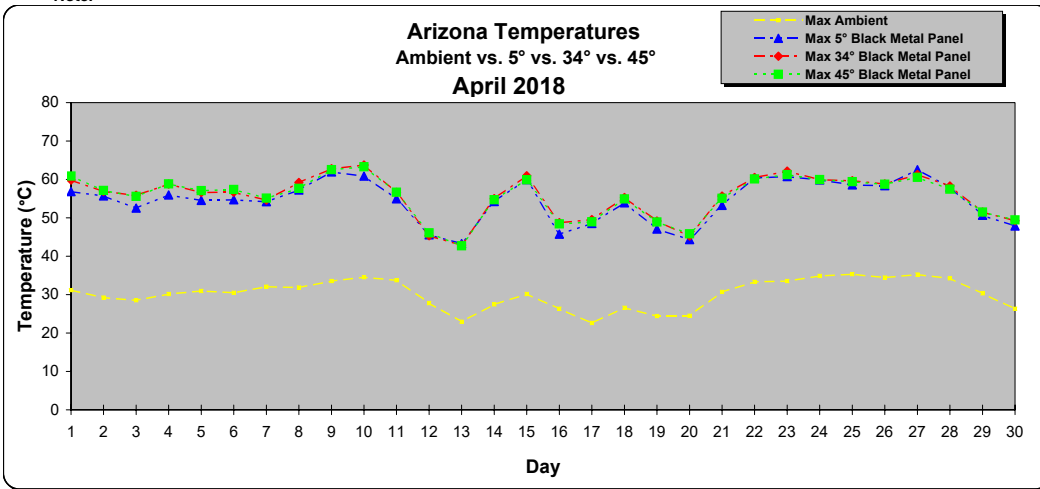
Weather Summary

April 2018

Phoenix, Arizona

AWSG		Temperature Summary												Climate Summary						
Month	Ambient Temperature			Black Metal Panel Temperature (ASTM G179) (° C)									Relative Humidity			Wind Speed		Wind Direction	Rainfall	
April	(° C)			5 °			34 °			45 °			(%)			m/sec		360°/0°=N	(mm)	
Day	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Avg.	Avg.	Total	
1	31	17	23	57	15	27	60	15	28	61	15	28	21	8	14	8.4	1.5	76°	0.0	
2	29	14	22	56	11	26	57	12	27	57	12	27	21	7	13	8.1	1.7	143°	0.0	
3	29	13	21	53	10	26	56	11	27	56	11	27	31	14	21	6.7	1.5	83°	0.0	
4	30	16	23	56	13	27	59	13	28	59	13	28	30	13	21	7.5	2.0	52°	0.0	
5	31	17	24	55	14	28	57	14	29	57	14	29	27	11	18	7.5	1.9	70°	0.0	
6	31	17	24	55	15	28	57	15	29	57	15	29	23	12	18	7.6	1.7	162°	0.0	
7	32	18	25	54	15	30	55	15	31	55	15	31	45	18	26	8.5	1.7	184°	0.0	
8	32	19	25	57	15	30	59	16	31	58	16	31	62	5	31	8.4	1.7	192°	0.0	
9	34	19	26	62	17	30	63	18	31	63	18	31	12	5	7	11.0	3.1	26°	0.0	
10	35	21	27	61	19	31	64	19	32	63	19	32	11	5	8	10.4	2.7	44°	0.0	
11	34	17	26	55	13	30	57	14	30	57	14	30	15	7	10	9.6	2.0	148°	0.0	
12	28	17	22	46	12	25	45	13	25	46	13	25	27	6	15	16.0	3.4	231°	0.0	
13	23	12	17	43	9	21	43	10	21	43	10	21	12	5	8	13.7	4.1	9°	0.0	
14	27	11	19	54	9	24	55	9	24	55	9	24	14	5	9	10.0	2.4	353°	0.0	
15	30	14	22	60	11	26	61	12	26	60	12	26	13	5	9	5.9	1.8	55°	0.0	
16	26	15	22	46	11	23	49	12	23	48	13	23	14	7	9	6.4	1.5	159°	0.0	
17	23	11	17	49	8	23	50	8	23	49	8	23	32	7	16	7.3	1.8	204°	0.0	
18	27	12	19	54	9	24	55	10	25	55	10	25	19	6	10	9.6	2.3	64°	0.0	
19	24	11	18	47	7	21	49	8	21	49	8	21	33	8	16	13.4	2.4	209°	0.0	
20	24	9	17	44	5	22	45	5	22	46	6	22	46	18	28	9.5	2.1	218°	0.0	
21	31	14	22	53	12	27	56	12	27	55	13	27	34	12	22	9.0	2.4	7°	0.0	
22	33	19	26	60	15	31	61	15	31	60	16	31	22	7	14	8.8	2.4	34°	0.0	
23	34	17	26	61	12	31	62	13	32	61	13	32	18	7	12	8.8	1.8	90°	0.0	
24	35	19	27	60	16	32	60	16	32	60	16	32	18	7	12	7.2	1.8	92°	0.0	
25	35	19	28	59	16	32	60	16	32	59	16	32	17	7	12	12.0	2.1	75°	0.0	
26	34	20	27	58	16	31	59	16	32	59	17	32	18	9	14	7.4	1.8	107°	0.0	
27	35	21	28	63	19	33	61	19	34	61	20	34	21	9	15	7.4	1.6	134°	0.0	
28	34	18	27	58	14	31	58	15	31	57	15	31	25	7	14	9.6	1.8	187°	0.0	
29	30	15	24	51	11	28	51	12	28	51	12	28	23	6	13	12.1	2.2	190°	0.0	
30	26	14	21	48	10	26	49	10	26	49	11	26	33	14	23	10.4	1.9	201°	0.0	
Monthly Avg.	30	16	23	54	13	28	56	13	28	56	13	28	24	9	15	9.3	2.1	126°	0.0	
Monthly Total																			0.0	
YTD [†] Avg.	24	11	17	45	8	20	50	9	21	51	9	22	41	15	27	9.3	2.3	90°	46.5	
YTD [†] Total																				

[†] Year To Date
Note:





Solar Radiation Summary

April 2018

Latitude 25° 34' North, Longitude 80° 28' West, Elevation 2 (m)

Miami, Florida

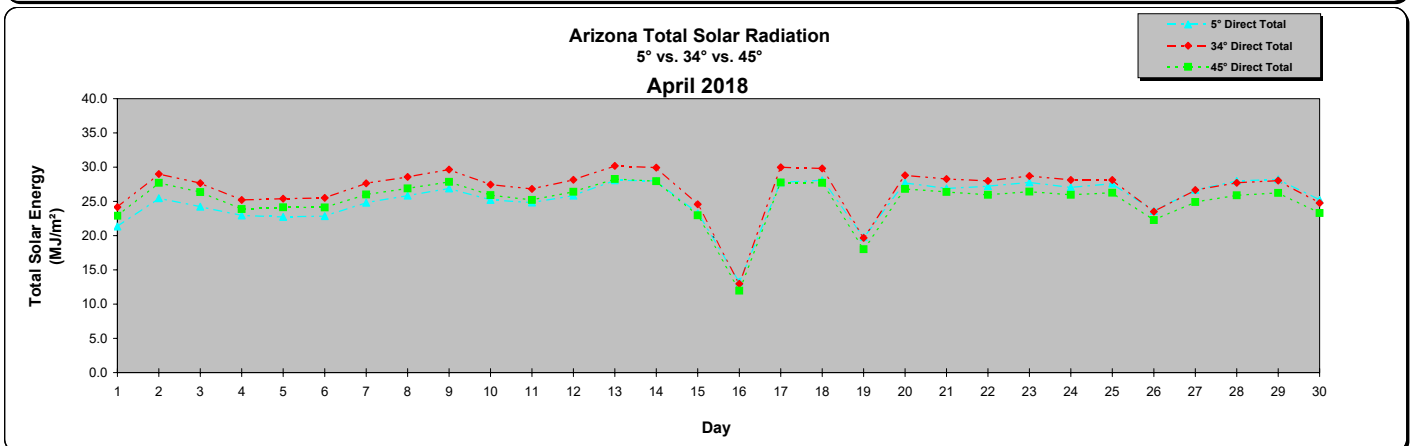
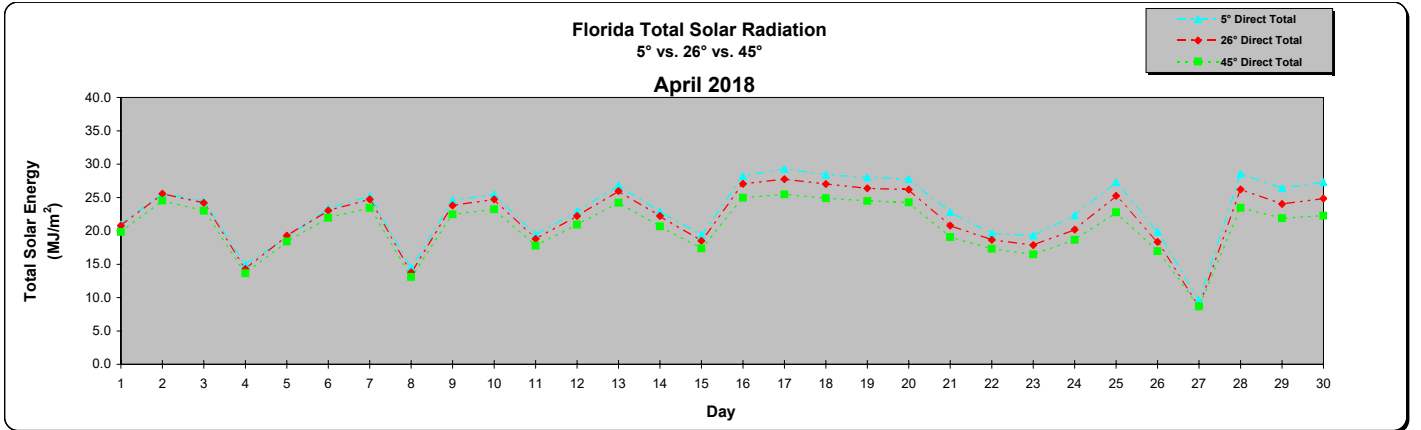
Latitude 33° 54' North, Longitude 112° 08' West, Elevation 610 (m)

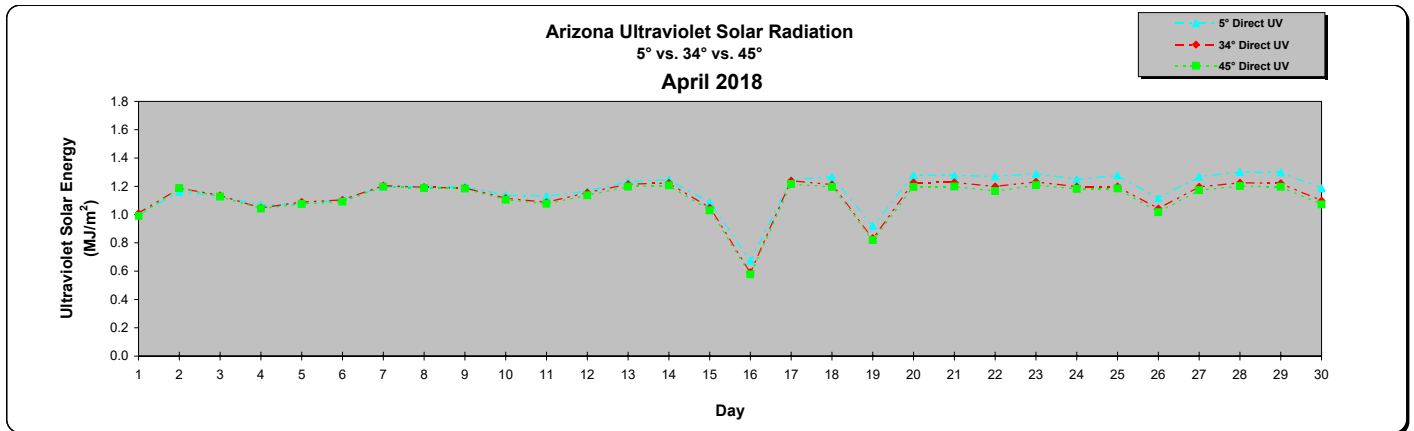
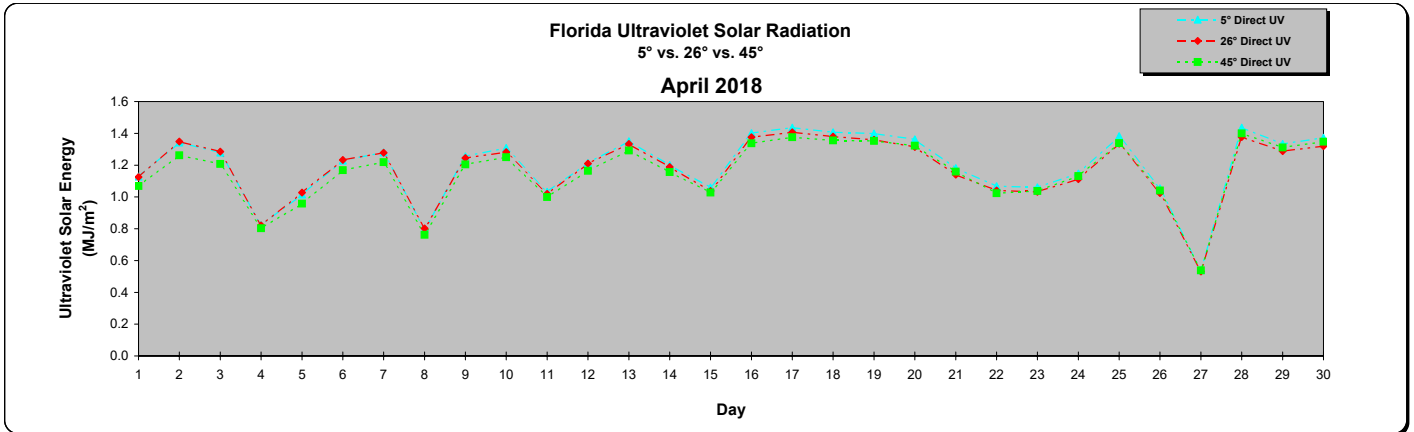
Phoenix, Arizona

AWSC	Solar Radiation Summary												Solar Radiation Summary													
	Total Solar Radiation (MJ/m2)						Ultraviolet Solar Radiation (MJ/m ²)						Total Solar Radiation (MJ/m2)						Ultraviolet Solar Radiation (MJ/m2)						EMMAQUA™	
	Direct			Underglass			Direct			Underglass			Direct			Underglass			Direct			Underglass			Total	UV
	5°	26°	45°	5°	26°	45°	5°	26°	45°	5°	26°	45°	5°	34°	45°	5°	34°	45°	5°	34°	45°	5°	34°	45°	(MJ/m ²)	
1	20.9	20.8	19.8	17.3	18.1	16.3	1.13	1.13	1.07	0.73	0.68	0.62	21.3	24.2	22.9	18.4	20.0	20.4	1.00	1.01	0.99	0.58	0.66	0.68	0	6.30
2	25.6	25.6	24.5	21.2	22.3	20.0	1.34	1.35	1.26	0.86	0.81	0.74	25.5	29.0	27.7	21.7	23.9	24.2	1.16	1.19	1.19	0.68	0.79	0.81	199	3.53
3	24.4	24.2	23.0	20.1	20.9	18.7	1.28	1.28	1.21	0.82	0.77	0.69	24.2	27.7	26.4	20.8	22.8	23.2	1.13	1.14	1.13	0.66	0.76	0.78	180	6.31
4	14.9	14.3	13.6	12.1	11.9	10.7	0.82	0.82	0.80	0.54	0.48	0.42	23.0	25.2	23.9	19.5	20.6	20.6	1.07	1.05	1.04	0.62	0.69	0.70	91	6.30
5	19.0	19.3	18.4	15.8	16.5	15.3	1.02	1.03	0.96	0.66	0.61	0.55	22.7	25.4	24.1	19.9	21.3	21.6	1.07	1.09	1.08	0.63	0.72	0.74	143	3.53
6	23.4	23.1	22.0	19.2	19.8	18.2	1.23	1.23	1.17	0.79	0.74	0.66	22.9	25.5	24.1	19.8	21.1	21.5	1.11	1.10	1.09	0.64	0.73	0.75	120	6.31
7	25.2	24.7	23.5	20.7	21.1	19.3	1.28	1.28	1.22	0.83	0.77	0.69	24.8	27.7	26.0	21.4	22.8	23.0	1.20	1.21	1.20	0.69	0.79	0.81	176	6.30
8	14.5	13.8	13.1	11.8	11.9	11.0	0.80	0.80	0.76	0.52	0.47	0.42	25.8	28.6	26.9	21.9	23.3	23.5	1.20	1.19	1.19	0.68	0.78	0.80	180	3.53
9	24.6	23.8	22.5	20.1	20.3	18.5	1.26	1.24	1.20	0.81	0.74	0.67	26.9	29.6	27.8	22.9	24.3	24.2	1.20	1.19	1.18	0.69	0.78	0.81	155	6.31
10	25.5	24.7	23.2	21.0	21.3	19.5	1.31	1.28	1.25	0.84	0.77	0.69	25.2	27.5	25.9	21.3	22.5	22.3	1.14	1.12	1.11	0.65	0.73	0.75	155	6.30
11	19.4	18.8	17.8	15.8	15.9	14.6	1.03	1.02	1.00	0.67	0.61	0.53	24.8	26.8	25.2	20.9	21.7	21.7	1.13	1.09	1.08	0.65	0.71	0.73	144	3.53
12	22.9	22.2	20.9	18.6	18.8	17.0	1.21	1.21	1.16	0.78	0.72	0.63	25.8	28.2	26.4	22.3	23.4	23.4	1.17	1.16	1.14	0.68	0.76	0.78	89	6.31
13	26.8	26.0	24.2	22.0	22.2	20.0	1.35	1.33	1.29	0.87	0.80	0.71	28.1	30.2	28.3	23.9	25.0	24.5	1.23	1.21	1.20	0.73	0.82	0.82	60	6.30
14	22.9	22.2	20.7	18.8	18.8	16.9	1.20	1.19	1.16	0.77	0.70	0.62	28.0	29.9	28.0	23.8	24.7	24.2	1.25	1.22	1.21	0.73	0.82	0.82	139	3.53
15	19.4	18.5	17.4	15.7	15.5	14.1	1.06	1.04	1.03	0.68	0.61	0.54	23.2	24.6	23.0	20.1	20.4	20.0	1.09	1.05	1.03	0.63	0.69	0.69	143	6.31
16	28.2	27.0	25.0	23.5	23.3	20.8	1.40	1.38	1.34	0.92	0.83	0.73	13.3	13.0	12.0	11.2	10.5	10.1	0.68	0.59	0.58	0.39	0.39	0.38	0	6.30
17	29.3	27.7	25.5	24.1	23.8	21.0	1.44	1.41	1.38	0.94	0.85	0.75	27.8	30.0	27.8	24.2	24.6	24.1	1.25	1.24	1.22	0.75	0.82	0.83	215	3.53
18	28.4	27.0	24.9	23.6	23.2	20.4	1.41	1.38	1.36	0.92	0.83	0.73	28.1	29.8	27.7	24.1	24.5	23.9	1.27	1.24	1.20	0.74	0.82	0.82	194	6.31
19	28.0	26.4	24.5	23.2	22.8	20.1	1.40	1.36	1.35	0.92	0.82	0.72	19.8	19.7	18.0	16.3	15.6	15.0	0.92	0.83	0.82	0.53	0.55	0.54	28	6.30
20	27.8	26.2	24.3	23.1	22.6	19.9	1.36	1.31	1.32	0.89	0.80	0.70	27.7	28.8	26.8	24.2	24.2	23.5	1.28	1.23	1.20	0.74	0.82	0.83	200	3.53
21	22.8	20.8	19.1	18.7	17.7	15.4	1.18	1.14	1.16	0.78	0.69	0.59	26.9	28.3	26.4	23.5	23.7	23.1	1.28	1.23	1.20	0.73	0.81	0.82	164	6.31
22	19.6	18.7	17.3	16.1	16.0	14.3	1.07	1.04	1.02	0.69	0.62	0.54	27.2	28.0	26.0	23.5	23.2	22.5	1.27	1.20	1.17	0.72	0.78	0.79	148	6.30
23	19.3	17.9	16.5	15.7	15.1	13.4	1.06	1.03	1.04	0.69	0.61	0.53	27.8	28.7	26.4	23.9	23.7	23.1	1.29	1.23	1.21	0.73	0.81	0.82	203	3.53
24	22.3	20.2	18.6	17.9	17.1	14.9	1.15	1.11	1.13	0.75	0.66	0.56	27.0	28.1	26.0	23.6	23.3	22.7	1.25	1.20	1.18	0.73	0.79	0.80	192	6.31
25	27.3	25.2	22.8	22.3	21.4	18.5	1.38	1.34	1.34	0.90	0.80	0.69	27.6	28.1	26.3	24.0	23.5	22.5	1.28	1.20	1.19	0.73	0.80	0.80	199	6.30
26	19.9	18.3	17.0	16.2	15.5	13.4	1.06	1.02	1.04	0.69	0.60	0.52	23.6	23.5	22.3	20.3	19.6	19.3	1.12	1.04	1.02	0.64	0.67	0.68	104	3.53
27	9.6	8.7	8.7	7.7	6.3	6.1	0.54	0.53	0.54	0.36	0.31	0.26	26.7	26.7	24.9	23.1	22.4	21.8	1.27	1.20	1.17	0.73	0.78	0.79	180	5.94
28	28.6	26.2	23.5	23.7	21.3	19.4	1.44	1.38	1.40	0.94	0.82	0.71	28.0	27.7	25.9	24.1	23.2	22.4	1.30	1.23	1.20	0.74	0.80	0.80	184	6.19
29	26.4	24.0	21.9	21.7	21.5	17.8	1.33	1.29	1.31	0.88	0.77	0.66	28.2	28.0	26.3	24.3	23.5	22.8	1.30	1.22	1.20	0.75	0.80	0.80	161	5.55
30	27.3	24.8	22.3	21.8	22.4	18.4	1.37	1.32	1.35	0.90	0.80	0.68	25.2	24.8	23.3	21.6	20.8	20.2	1.19	1.10	1.07	0.69	0.72	0.72	102	3.56
Monthly Total	694.3	661.3	616.3	569.5	564.9	504.0	35.89	35.27	34.61	23.34	21.08	18.54	757.2	803.1	752.4	650.3	663.8	655.3	35.05	33.94	33.43	20.25	22.34	22.69	4247	160.26
YTD ¹ Total	2187.8	2417.4	2459.8	1850.5	2070.5	2041.4	110.31	117.06	122.60	75.10	72.56	68.58	2228.3	2814.0	2786.4	1854.0	2311.6	2455.8	100.58	106.51	106.98	58.93	71.05	74.70	12380	474.02

¹ Year To Date

Note: Total Solar Radiation - (290-3000 nm) Ultraviolet Solar Radiation - (295-385 nm).



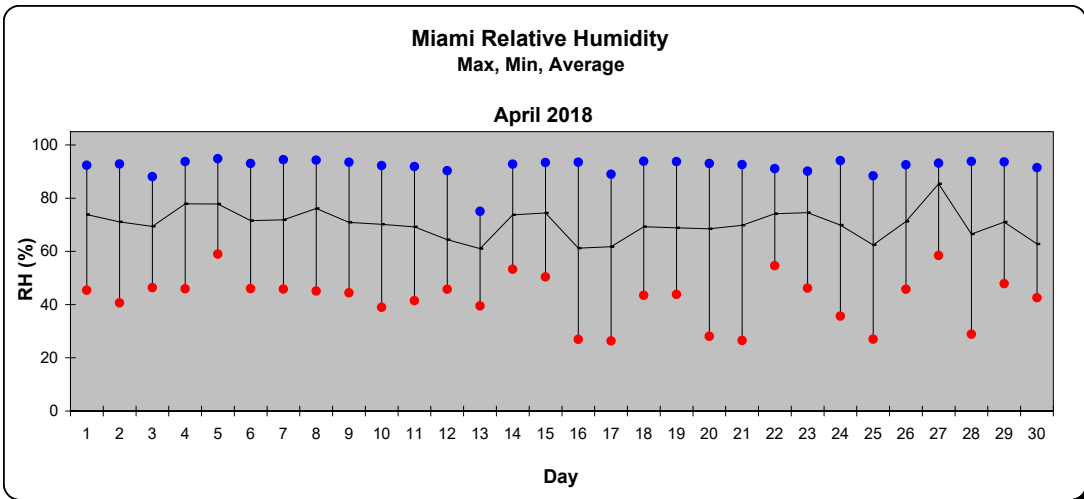
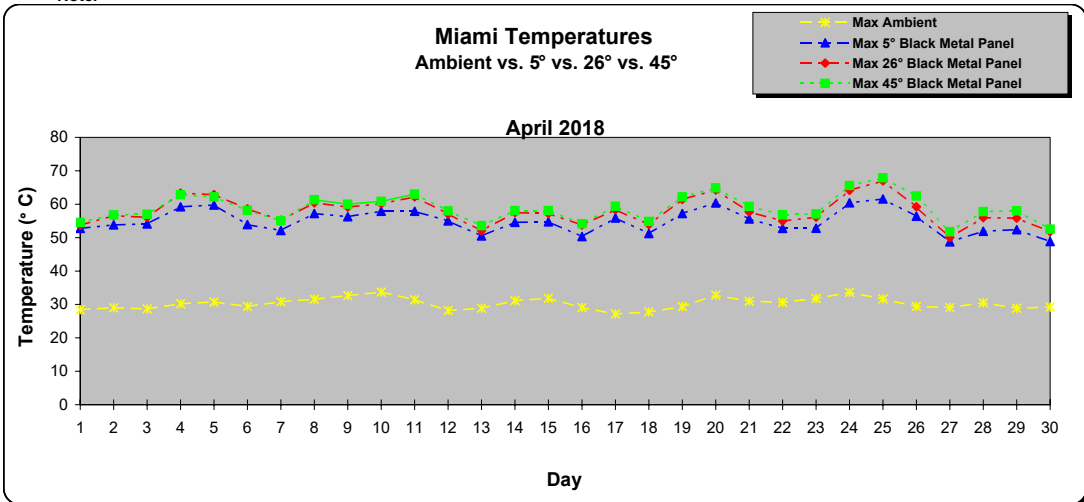


Latitude 25° 34' North, Longitude 80° 28' West, Elevation 2 (m)

AWSG	Temperature Summary												Climate Summary							
	Month	Ambient Temperature			Black Metal Panel Temperature (ASTM G179) (° C)									Relative Humidity			Wind Speed		Wind Direction	Rowspan
		April	° C			5 °			26 °			45 °			%			m/sec		360°/0°=N
	Day		Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Avg.	Avg
1	28	18	23	53	16	27	54	16	27	55	16	27	92	45	74	6.0	1.8	109°	0.3	
2	29	18	24	54	16	28	57	16	29	57	15	29	93	41	71	5.0	1.8	122°	0.0	
3	29	19	24	54	16	28	56	16	28	57	16	28	88	46	69	5.2	1.8	99°	0.0	
4	30	18	23	59	16	26	63	16	26	63	16	26	94	46	78	4.6	1.2	167°	0.0	
5	31	18	23	60	15	27	63	15	27	62	15	27	95	59	78	5.6	1.8	137°	3.8	
6	29	18	24	54	16	28	59	16	28	58	16	28	93	46	72	4.9	1.7	101°	0.0	
7	31	17	24	52	15	28	55	15	29	55	15	29	94	46	72	5.8	1.9	185°	0.0	
8	32	20	25	57	18	27	60	18	27	61	17	27	94	45	76	4.8	1.5	190°	3.0	
9	33	20	26	56	18	30	59	18	31	60	18	31	94	44	71	5.4	1.5	163°	0.0	
10	34	21	26	58	19	31	60	19	32	61	18	31	92	39	70	6.1	1.9	124°	0.0	
11	31	19	24	58	17	27	62	17	28	63	17	28	92	42	69	5.1	1.8	204°	0.0	
12	28	17	23	55	14	27	57	15	27	58	14	27	90	46	64	5.8	2.6	116°	0.0	
13	29	21	25	51	18	29	52	18	30	54	18	30	75	40	61	5.2	2.4	92°	0.0	
14	31	18	25	55	15	29	57	15	29	58	15	29	93	53	74	5.6	2.0	125°	0.0	
15	32	22	27	55	21	30	57	21	30	58	21	30	93	50	74	7.1	2.9	160°	10.9	
16	29	15	22	50	12	26	54	12	28	54	12	28	94	27	61	5.6	2.2	300°	0.3	
17	27	13	19	56	11	24	58	11	25	59	11	25	89	26	62	4.4	1.6	161°	0.0	
18	28	14	21	51	11	26	54	10	27	55	10	27	94	43	69	5.6	1.6	112°	0.0	
19	29	15	23	57	13	28	61	13	29	62	13	29	94	44	69	4.4	1.3	149°	0.0	
20	33	18	24	60	16	30	64	16	31	65	15	31	93	28	69	4.6	1.4	191°	0.0	
21	31	18	25	56	15	29	58	16	29	59	15	30	93	27	70	4.7	1.8	91°	0.0	
22	31	22	26	53	20	29	55	20	29	57	19	29	91	55	74	6.3	2.4	107°	0.0	
23	32	23	26	53	21	29	56	21	30	57	21	30	90	46	75	6.3	1.9	136°	0.3	
24	34	21	27	60	19	30	64	19	31	66	19	31	94	36	70	7.0	1.8	221°	0.0	
25	32	19	25	62	16	29	67	16	30	68	15	31	88	27	62	7.3	2.3	262°	0.0	
26	29	16	23	56	14	27	59	13	28	62	13	28	93	46	71	4.3	1.2	158°	0.0	
27	29	19	23	49	18	25	50	18	25	52	17	25	93	58	85	4.2	1.0	165°	58.2	
28	30	20	24	52	17	28	56	17	29	58	17	30	94	29	67	5.4	2.1	271°	0.0	
29	29	16	24	52	14	28	56	14	28	58	14	29	94	48	71	5.3	1.7	143°	0.0	
30	29	19	25	49	16	28	52	16	29	53	16	29	91	43	63	6.1	2.5	72°	0.0	
Monthly Avg.	30	18	24	55	16	28	58	16	29	59	16	29	92	42	70	5.5	1.8	154°	76.7	
Monthly Total																				
YTD [†] Avg.	27	16	22	51	14	25	53	14	25	54	14	25	91	47	72	5.7	2.1	149°	168.4	
YTD [†] Total																				

[†] Year To Date

Note:





ATLAS

WEATHERING SERVICES GROUP



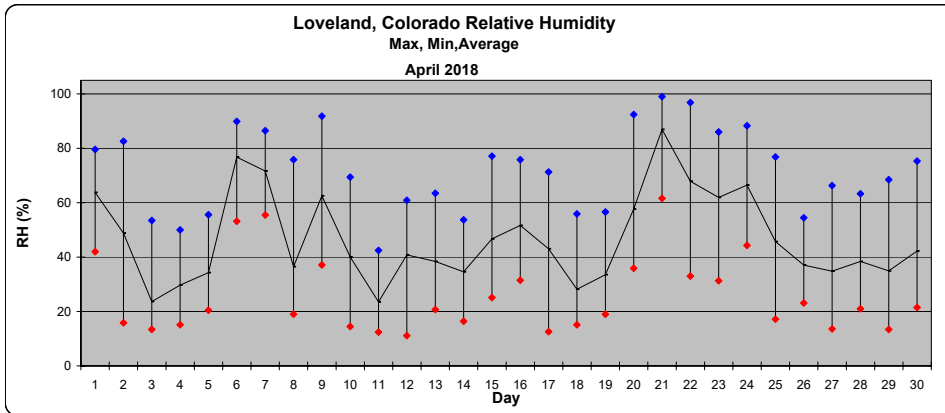
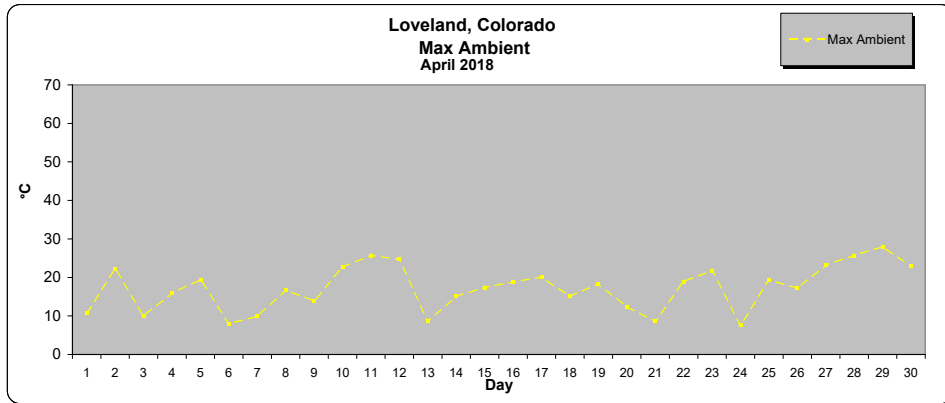
Weather Summary April 2018 Loveland, Colorado

Latitude 40° 25' North Longitude 104° 59' West Elevation 1527 (m).

Month	Temperature Summary			Climate Summary					
	Ambient Temperature			Relative Humidity			Wind Speed		Wind Direction
April	(^° C)			(%)			(m/s)		360°/0°=N
Day	Max	Min	Avg	Max	Min	Avg	Max	Avg	Avg
1	10.7	-4.3	1.59	80	42	64	5.4	2.3	163
2	22.2	-0.5	10.59	83	16	49	12.1	3.5	175
3	10	-0.5	4.64	54	13	24	16.4	6.4	276
4	15.9	-3.2	7.17	50	15	30	11.5	2.9	165
5	19.4	1.6	11.09	56	21	34	8.5	2.2	131
6	8	-5.1	-0.92	90	53	77	7.9	3.6	92
7	9.9	-5.9	1.48	87	56	72	4	1.8	153
8	16.7	5.7	12.18	76	19	36	15.3	6.4	262
9	13.9	1.1	7.54	92	37	63	8.8	2.3	160
10	22.7	0.5	11.86	69	15	40	7.2	2.1	175
11	25.7	10.4	18.46	43	12	24	10.5	3.7	199
12	24.7	6.7	13.50	61	11	41	14.2	4.8	100
13	8.6	1.8	5.49	64	21	38	15.6	9.7	265
14	15.1	2.2	7.54	54	16	35	15.5	7.7	276
15	17.4	-0.3	9.10	77	25	47	6.9	2.0	161
16	18.8	0.4	9.83	76	32	52	4.8	2.3	174
17	20.1	1.6	8.94	71	13	43	18.3	6.3	244
18	15.1	2	7.75	56	15	28	11.1	3.7	176
19	18.3	-2	8.91	57	19	34	6.5	2.5	162
20	12.4	1.4	6.89	92	36	58	11.9	4.7	189
21	8.6	0.7	3.29	99	62	87	4.4	2.5	123
22	18.9	-0.6	8.45	97	33	68	4.9	1.7	149
23	21.8	3.9	11.36	86	31	62	15.1	3.6	128
24	7.6	1.5	4.49	88	44	66	9.2	3.4	82
25	19.3	0.9	10.30	77	17	46	6.3	2.0	172
26	17.2	7.3	11.70	55	23	37	13.5	5.1	164
27	23.2	3.3	14.06	66	14	35	4.7	1.5	142
28	25.7	4.4	15.31	63	21	38	5.1	2.3	159
29	28	8.1	18.73	69	13	35	9.8	2.3	169
30	22.9	9	15.55	75	22	42	9.2	3.2	122
Monthly Avg.	17	2	9	72	26	47	9.8	3.7	172°
YTD¹ Avg.	12	-3	4	74	29	51	8.5	3.0	168°

¹ Year To Date

Note:





ATLAS

WEATHERING SERVICES GROUP

Solar Radiation Summary

April 2018

Loveland, Colorado

Latitude 40° 25' North Longitude 104° 59' West Elevation 1527 (m).

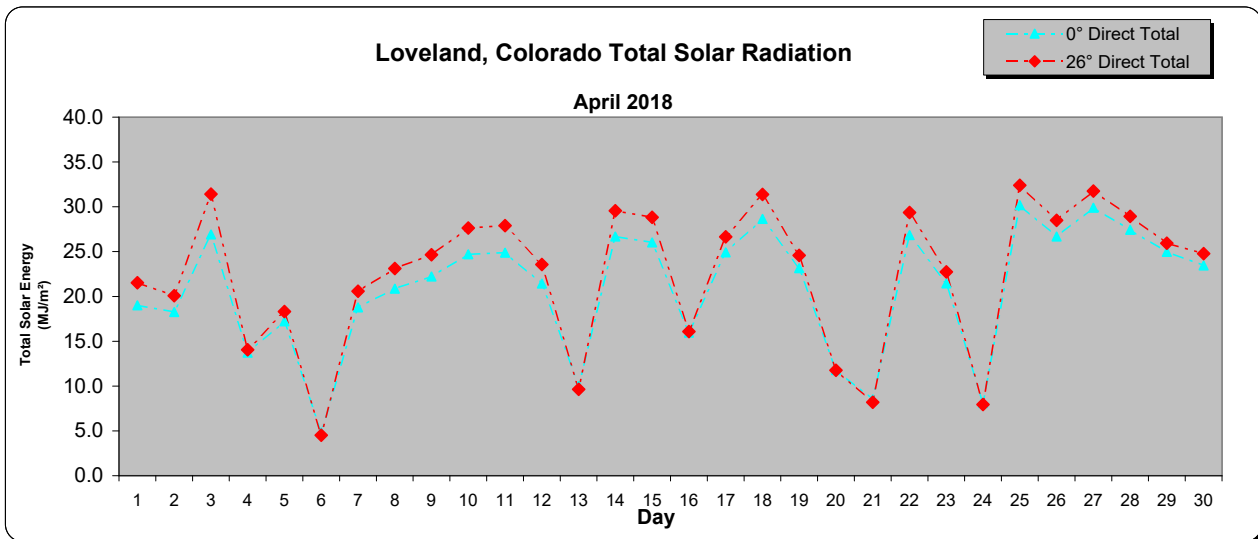


AWSG	Radiation	
Month	Total Solar	
April	Direct	
Day	0°	26°
1	19.0	21.5
2	18.3	20.1
3	26.9	31.4
4	13.7	14.0
5	17.2	18.3
6	4.8	4.5
7	18.8	20.6
8	20.9	23.1
9	22.2	24.7
10	24.7	27.6
11	24.9	27.9
12	21.4	23.6
13	10.0	9.6
14	26.7	29.6
15	26.0	28.8
16	16.0	16.1
17	24.9	26.6
18	28.6	31.4
19	23.2	24.6
20	11.8	11.8
21	8.5	8.2
22	26.8	29.4
23	21.4	22.7
24	8.1	8.0
25	30.2	32.4
26	26.7	28.5
27	29.9	31.8
28	27.4	28.9
29	25.0	25.9
30	23.5	24.8
Monthly Total	627.6	676.3
YTD[†] Total	1830.0	2241.5

[†] Year To Date

Note:

*No data available





Weather Summary
April 2018

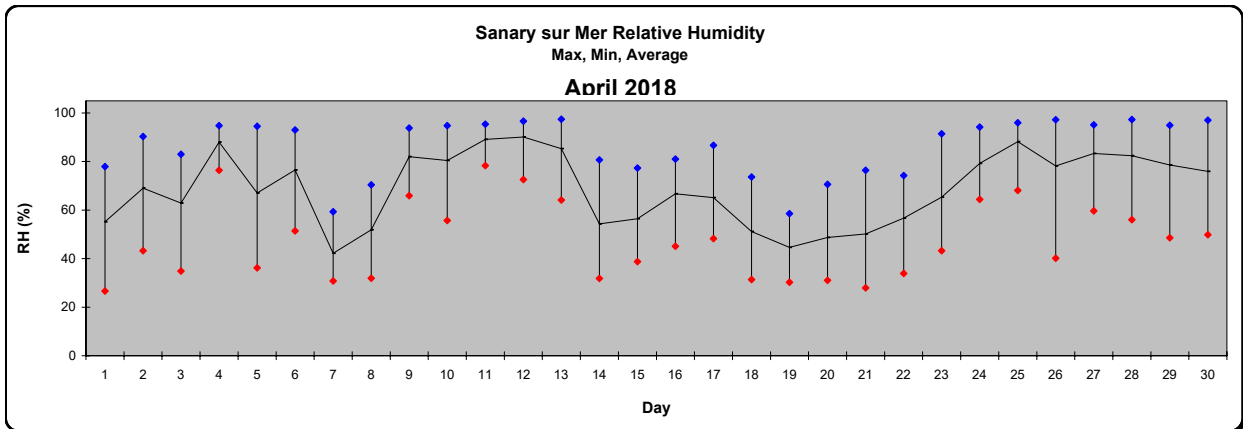
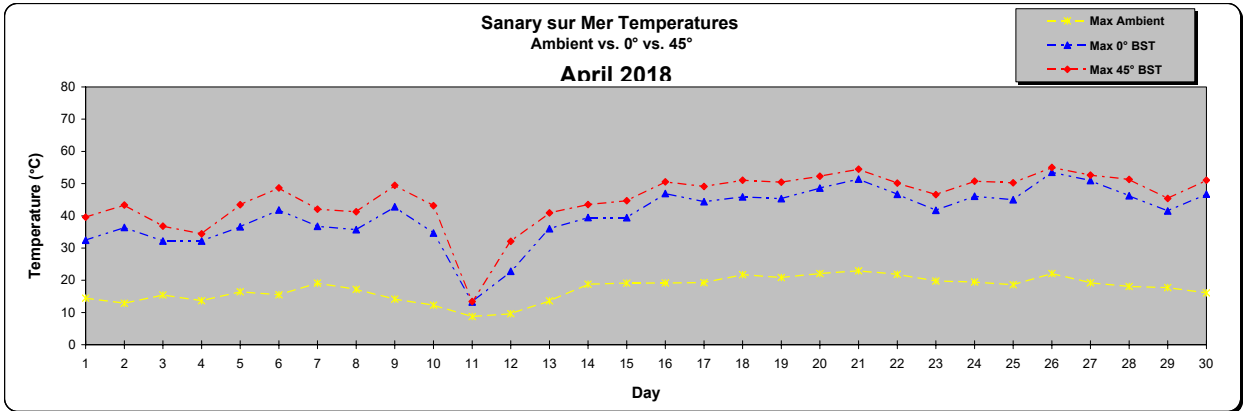
Sanary sur Mer, France

Latitude 43° 08' North, Longitude 05° 49' East, Elevation 110 (m)

AWSG		Temperature Summary																		Climate Summary								
Month	Ambient Temperature	Black Standard Temperature BST (°C)						Black Panel Temperature BPT (°C)						Black Metal Panel Temperature (ASTM G179) (°C)						Relative Humidity			Wind Speed		Wind Direction	Rainfall		
April	(°C)	0°			45°			0°			45°			0°			45°			(%)			(m/s)		360°/0°=N	(mm)		
Day	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Avg	Total	
1	14	2	8	32	2	14	40	3	17	30	2	13	33	0	13	35	1	14	41	2	16	78	27	55	8.6	1.9	269°	0.0
2	13	4	9	36	4	16	43	4	17	33	3	15	37	2	15	37	3	15	43	3	17	90	43	69	7.6	1.7	89°	0.0
3	15	9	11	32	11	17	37	12	18	29	11	16	31	11	16	32	11	17	36	11	17	83	35	63	11.6	3.4	82°	0.0
4	14	7	10	32	8	15	34	8	16	31	8	15	33	7	14	34	8	15	37	8	15	95	76	88	7.5	1.9	85°	0.0
5	16	6	11	37	6	17	43	7	19	33	6	16	36	5	16	38	6	17	44	6	18	95	36	67	8.2	1.4	278°	0.0
6	15	4	10	42	5	18	49	5	20	38	5	17	42	3	17	43	4	17	49	5	19	93	51	77	6.6	1.2	79°	0.0
7	19	10	14	37	11	20	42	11	21	33	10	19	36	9	19	35	10	20	40	11	20	59	31	42	10.6	2.6	85°	0.0
8	17	10	13	36	11	18	41	11	19	31	11	17	35	10	17	35	11	18	40	11	19	70	32	52	13.0	3.7	86°	0.5
9	14	8	10	43	9	15	49	9	17	39	9	15	43	8	15	44	9	16	49	9	16	94	66	82	8.0	2.0	92°	2.0
10	12	7	9	35	9	14	43	9	15	36	9	14	39	8	14	42	9	15	47	9	15	95	56	80	6.9	1.8	111°	3.6
11	9	6	8	13	8	11	13	8	11	13	8	10	12	7	10	14	8	11	14	8	11	95	78	89	11.3	2.8	79°	42.2
12	10	5	7	23	6	11	32	6	12	25	6	11	28	5	10	30	6	11	33	6	12	97	73	90	10.0	1.4	74°	21.8
13	14	5	9	36	6	14	41	7	16	33	6	14	36	5	14	37	6	15	41	6	15	97	64	85	6.8	1.7	79°	4.1
14	19	9	13	39	10	19	44	11	20	36	10	18	40	9	17	40	11	18	46	11	19	81	32	54	8.7	1.7	68°	0.0
15	19	9	14	39	9	21	45	10	23	35	9	20	38	7	20	40	9	21	46	10	22	77	39	56	5.7	1.1	326°	0.0
16	19	8	13	47	9	21	51	9	22	44	8	20	46	6	19	48	8	20	52	9	21	81	45	67	3.6	0.7	302°	0.0
17	19	8	14	44	9	23	49	9	24	40	9	22	43	7	22	45	9	23	49	9	24	87	48	65	3.4	0.7	319°	0.0
18	22	11	16	46	12	25	51	12	26	42	12	23	47	11	24	46	11	24	52	12	25	74	31	51	8.3	1.4	64°	0.0
19	21	12	17	45	12	25	50	13	26	41	12	24	45	9	24	45	12	24	49	12	25	59	30	45	6.3	1.2	78°	0.0
20	22	10	16	49	11	25	52	11	26	44	10	24	48	8	23	47	10	25	53	11	26	71	31	49	6.6	0.9	62°	0.0
21	23	11	17	51	11	26	55	12	27	47	11	25	49	6	23	51	11	26	53	12	27	76	28	50	3.9	0.8	328°	0.0
22	22	10	15	47	10	23	50	10	24	42	9	21	45	6	19	48	9	23	52	10	24	74	34	57	5.4	1.0	294°	0.0
23	20	11	15	42	11	23	47	11	24	40	11	22	41	6	20	45	11	23	49	11	24	91	43	65	3.7	0.9	255°	0.0
24	19	10	14	46	11	24	51	11	25	45	11	23	46	9	22	50	11	23	53	11	24	94	64	79	3.7	0.7	88°	0.0
25	19	9	13	45	10	20	50	10	21	42	10	19	45	7	18	47	10	20	52	10	21	96	68	88	4.5	0.7	292°	0.0
26	22	9	14	54	11	24	55	11	25	48	11	22	51	8	22	52	11	24	57	11	25	97	40	78	4.7	0.8	83°	0.0
27	19	9	14	44	9	22	53	11	22	44	10	20	47	8	19	48	10	21	54	10	22	95	60	83	4.9	0.8	68°	0.0
28	18	8	13	46	10	22	51	10	24	42	10	21	46	8	21	46	10	22	51	10	23	97	56	82	5.2	0.9	81°	0.0
29	18	7	12	42	8	18	45	8	19	38	8	17	40	6	16	41	8	18	45	8	18	95	49	79	8.8	1.5	95°	11.9
30	16	6	11	47	7	20	51	7	21	44	6	19	45	4	17	48	6	20	52	7	21	97	50	76	4.7	0.8	73°	0.0
Monthly Avg.	17	8	12	39	9	19	44	9	20	36	8	18	39	7	17	40	8	19	45	9	19	83	46	67	6.7	1.4	141°	
Monthly Total																												86.1
YTD [†] Avg.	12	4	8	29	5	13	38	5	15	27	5	12	33	4	13	31	5	13	37	5	14	87	50	70	7.0	1.4	158°	
YTD [†] Total																												363.2

[†] Year To Date

Note: *No data available



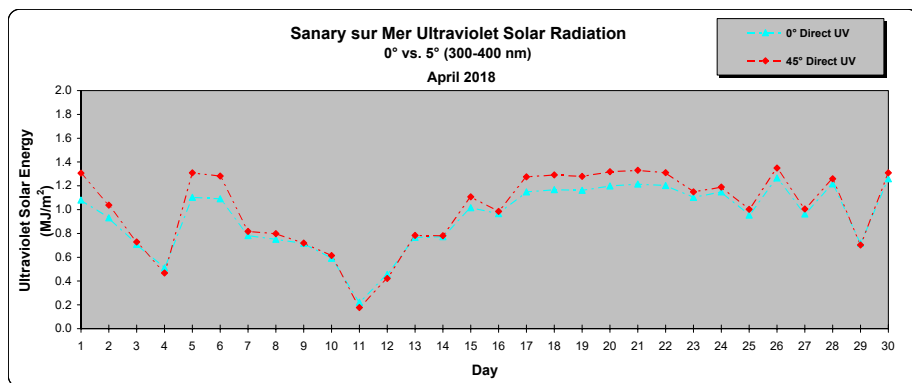
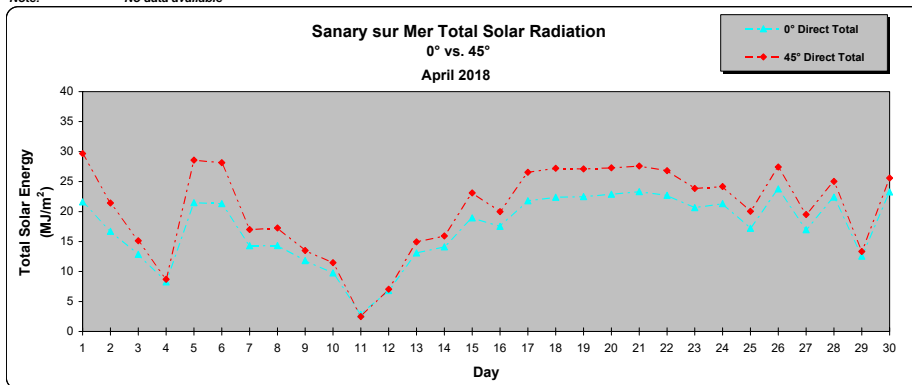
Solar Radiation Summary
April 2018
Sanary sur Mer, France

Latitude 43° 08' North, Longitude 05° 49' East, Elevation 110 (m)

Solar Radiation Summary						
Month	Total Solar Radiation (MJ/m ²)		Ultraviolet Solar Radiation (MJ/m ²)			
	Direct		295-385 nm		300-400 nm	
Day	0°	45°	0°	45°	0°	45°
1	21.6	29.7	0.82	1.00	1.08	1.31
2	16.7	21.4	0.71	0.79	0.93	1.04
3	12.9	15.1	0.54	0.56	0.71	0.73
4	8.3	8.7	0.39	0.36	0.51	0.47
5	21.5	28.6	0.84	1.00	1.10	1.31
6	21.3	28.1	0.83	0.98	1.09	1.28
7	14.3	17.0	0.60	0.62	0.78	0.82
8	14.3	17.3	0.57	0.61	0.75	0.80
9	11.8	13.5	0.55	0.55	0.72	0.72
10	9.8	11.5	0.45	0.47	0.59	0.61
11	2.9	2.5	0.17	0.14	0.22	0.18
12	6.8	7.0	0.35	0.32	0.46	0.42
13	13.1	15.0	0.59	0.60	0.77	0.78
14	14.1	15.9	0.59	0.60	0.77	0.78
15	19.0	23.1	0.78	0.85	1.02	1.11
16	17.5	20.0	0.74	0.75	0.97	0.99
17	21.8	26.6	0.88	0.97	1.15	1.28
18	22.4	27.2	0.89	0.99	1.17	1.29
19	22.5	27.1	0.89	0.98	1.16	1.28
20	22.9	27.3	0.91	1.01	1.20	1.32
21	23.3	27.6	0.93	1.02	1.22	1.33
22	22.7	26.8	0.92	1.00	1.20	1.31
23	20.7	23.9	0.84	0.88	1.10	1.15
24	21.3	24.2	0.88	0.91	1.15	1.19
25	17.2	20.1	0.73	0.77	0.95	1.00
26	23.8	27.4	0.97	1.03	1.27	1.35
27	17.0	19.5	0.74	0.77	0.96	1.01
28	22.4	25.0	0.93	0.96	1.22	1.26
29	12.6	13.3	0.55	0.54	0.72	0.70
30	23.3	25.6	0.96	1.00	1.26	1.31
Monthly Total	519.7	615.9	21.51	23.00	28.20	30.11
YTD¹ Total	1268.3	1857.4	50.25	58.31	65.80	76.33

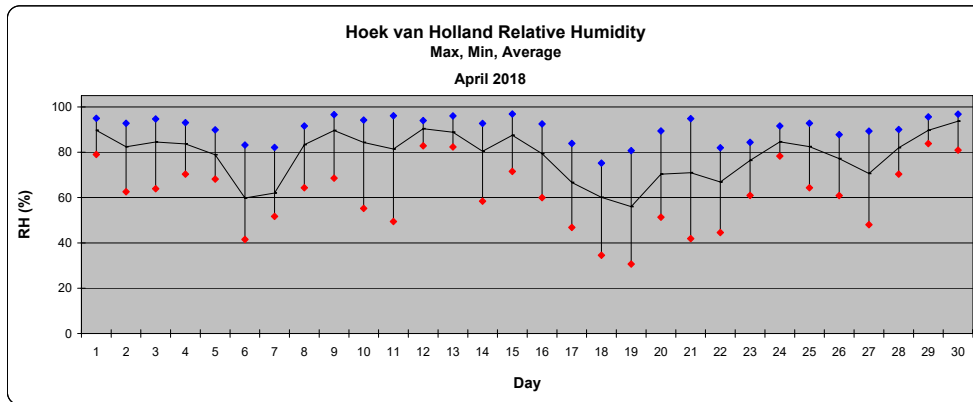
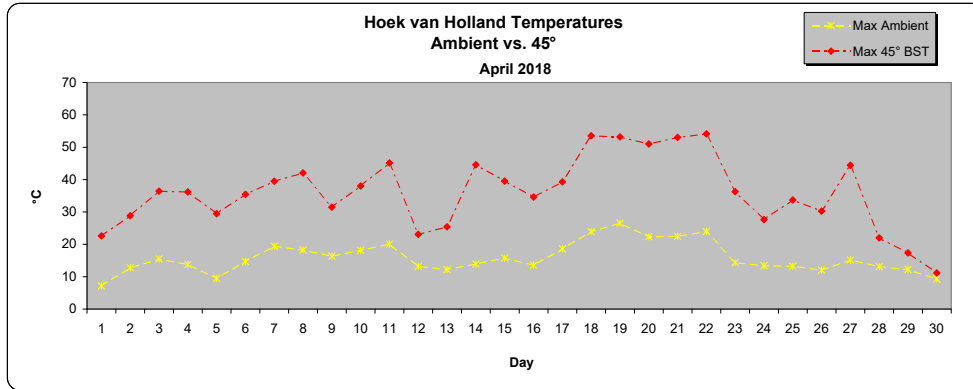
¹ Year To Date Total Solar Radiation - (290-3000 nm) Ultraviolet Solar Radiation - (295-385 nm) or (300-400 nm).

Note: * No data available



Month	Temperature Summary						Climate Summary						
	Ambient Temperature			Black Metal Panel Temperature (ASTM G179) (°C)			Relative Humidity			Wind Speed		Wind Direction	Rainfall
April	(° C)			45 °			(%)			(m/s)		360°/0°=N	(mm)
Day	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Avg	Avg	Total
1	7	2	5	23	-1	5	95	79	90	9.3	2.6	325°	3.0
2	13	3	8	29	1	9	93	63	82	11.5	3.0	135°	3.0
3	15	8	11	36	7	14	95	64	85	12.8	5.3	190°	11.6
4	14	8	10	36	6	11	93	70	84	12.0	4.7	179°	4.0
5	9	5	7	29	1	10	90	68	79	14.5	5.8	264°	0.2
6	15	3	9	35	-1	14	83	41	60	9.5	3.1	118°	0.0
7	19	8	14	39	4	19	82	52	62	9.8	2.6	139°	0.0
8	18	8	12	42	7	16	92	64	83	6.5	2.2	347°	0.0
9	16	7	10	31	7	12	97	69	90	7.3	3.1	359°	0.6
10	18	8	11	38	7	14	94	55	84	7.3	2.6	138°	0.0
11	20	8	13	45	7	17	96	49	81	10.0	2.0	84°	9.0
12	13	8	11	23	6	11	94	83	90	7.0	2.1	63°	0.2
13	12	9	10	25	6	12	96	82	89	7.3	2.6	216°	0.2
14	14	9	11	45	6	16	93	58	80	4.8	1.9	270°	0.0
15	16	10	12	40	9	16	97	72	88	7.3	1.6	140°	3.4
16	14	10	11	35	7	16	93	60	79	9.8	3.9	224°	0.6
17	19	9	14	39	7	18	84	47	67	10.8	3.8	176°	0.0
18	24	12	18	54	10	25	75	35	60	5.5	1.8	144°	0.0
19	27	12	19	53	9	25	81	31	56	5.5	1.7	87°	0.0
20	22	9	16	51	7	23	89	51	70	6.8	1.9	257°	0.0
21	22	8	15	53	5	23	95	42	71	4.8	1.5	48°	0.0
22	24	11	17	54	7	22	82	45	67	13.3	3.1	152°	0.0
23	14	11	12	36	10	17	84	61	76	12.0	5.2	245°	0.0
24	13	10	12	28	9	14	92	78	85	13.0	5.8	224°	0.2
25	13	10	11	34	9	15	93	64	83	16.5	6.8	244°	0.4
26	12	9	10	30	8	14	88	61	77	13.3	6.6	245°	1.0
27	15	8	11	44	6	14	89	48	71	9.5	2.7	148°	0.4
28	13	10	12	22	8	13	90	70	82	10.3	3.8	208°	1.2
29	12	8	10	17	7	10	96	84	90	13.3	3.4	12°	11.2
30	9	7	9	11	6	9	97	81	94	15.3	4.4	8°	28.6
Monthly Avg.	16	8	12	36	6	15	91	61	78	9.9	3.4	180°	
Monthly Total													78.8
YTD¹ Avg.	9	3	6	25	1	8	91	65	80	10.7	4.0	168°	
YTD¹ Total													244.8

¹ Year To Date For Pollution (SO2, Nox, O3) visit www.lml.rivm.nl
Note: = 5 year average





ATLAS

WEATHERING SERVICES GROUP

North Sea Corrosion Test Centre

Solar Radiation Summary

April 2018

Hoek van Holland, The Netherlands

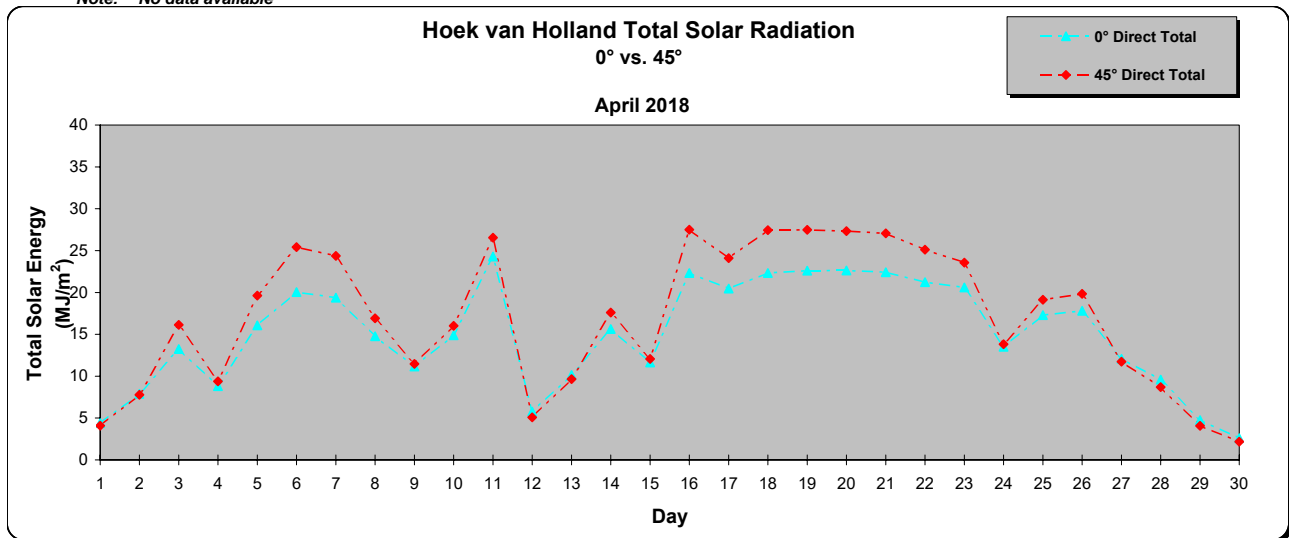
Latitude 51° 57' North, Longitude 04° 10' East Elevation 6 (m)



AWSG	Solar Radiation Summary	
Month	Total Solar Radiation (MJ/m ²)	
April	Direct	
Day	0°	45°
1	4.4	4.1
2	7.9	7.8
3	13.3	16.1
4	8.8	9.4
5	16.1	19.6
6	20.0	25.4
7	19.4	24.4
8	14.8	16.9
9	11.2	11.5
10	14.9	16.0
11	24.3	26.5
12	5.8	5.1
13	10.1	9.7
14	15.6	17.6
15	11.6	12.1
16	22.3	27.5
17	20.5	24.1
18	22.3	27.5
19	22.6	27.5
20	22.6	27.3
21	22.4	27.1
22	21.2	25.1
23	20.6	23.6
24	13.5	13.8
25	17.3	19.1
26	17.8	19.8
27	12.1	11.7
28	9.6	8.7
29	4.8	4.1
30	2.6	2.2
Monthly Total	450.4	511.2
YTD[†] Total	1034.5	1338.2

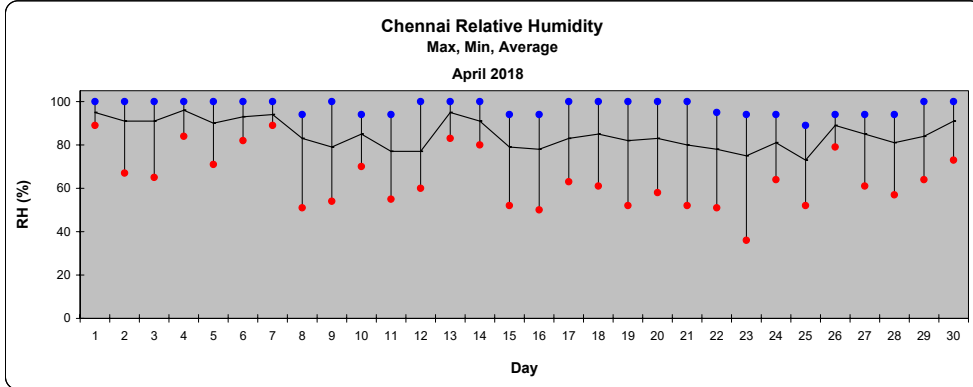
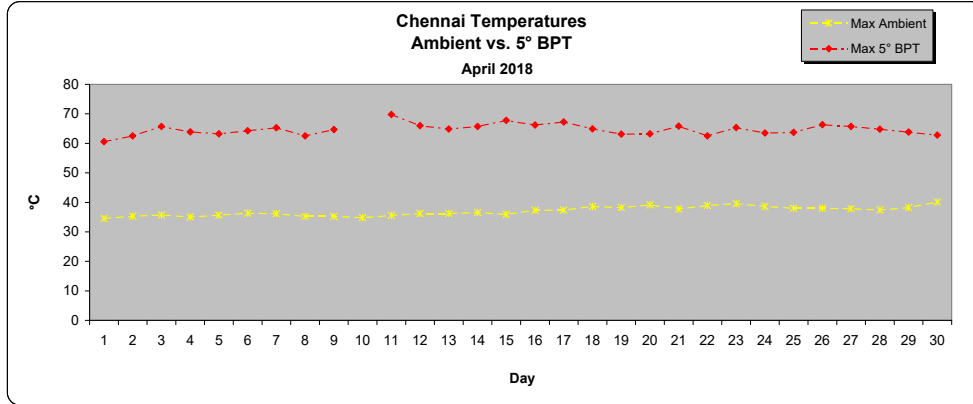
[†] Year To Date Total Solar Radiation - (390-3000nm)

Note: * No data available



Month	Temperature Summary						Climate Summary						
	Ambient Temperature			Black Metal Panel Temperature (ASTM G179) (°C)			Relative Humidity			Wind Speed		Wind Direction	Rainfall
April	° C			5 °			%			(m/s)		360°/0°=N	(mm)
Day	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Avg	Avg	Total
1	35	26	29	61	24	34	100	89	95	5.3	0.8	124°	0.0
2	35	24	29	63	23	33	100	67	91	5.1	0.8	110°	0.0
3	36	25	29	66	23	35	100	65	91	4.7	0.7	92°	0.0
4	35	24	29	64	22	34	100	84	96	4.3	0.8	109°	0.0
5	36	23	28	63	22	33	100	71	90	4.0	0.8	111°	0.0
6	36	22	28	64	21	34	100	82	93	3.7	0.8	134°	0.0
7	36	23	29	65	22	34	100	89	94	4.2	0.7	78°	0.0
8	35	23	29	63	22	34	94	51	83	5.1	1.0	48°	0.0
9	35	24	29	65	23	34	100	54	79	3.9	0.8	55°	0.0
10	35	25	30	*	*	*	94	70	85	5.1	1.2	80°	0.3
11	36	24	29	70	23	34	94	55	77	4.8	0.9	49°	19.8
12	36	24	29	66	22	35	100	60	77	*	0.8	79°	9.9
13	36	25	30	65	23	35	100	83	95	*	0.8	82°	0.0
14	37	26	30	66	24	35	100	80	91	3.9	0.8	128°	0.0
15	36	25	30	68	24	35	94	52	79	4.8	0.8	92°	0.0
16	37	25	30	66	24	36	94	50	78	4.3	0.8	122°	0.0
17	37	25	30	67	24	35	100	63	83	*	0.8	153°	0.0
18	39	24	30	65	23	36	100	61	85	4.4	0.9	150°	0.0
19	38	26	31	63	24	36	100	52	82	5.5	0.9	179°	0.0
20	39	26	31	63	25	37	100	58	83	4.7	0.9	151°	0.0
21	38	27	31	66	25	36	100	52	80	5.7	0.9	139°	0.0
22	39	25	31	63	24	36	95	51	78	*	0.9	157°	0.0
23	40	25	31	65	24	37	94	36	75	4.0	0.8	142°	0.0
24	39	27	32	64	25	39	94	64	81	*	1.1	145°	0.0
25	38	26	31	64	24	36	89	52	73	5.0	0.9	170°	0.0
26	38	26	31	66	24	36	94	79	89	5.8	0.8	145°	0.0
27	38	25	30	66	24	36	94	61	85	*	0.9	124°	0.0
28	37	25	30	65	23	35	94	57	81	*	0.8	120°	0.0
29	38	25	31	64	24	36	100	64	84	5.5	0.9	145°	0.0
30	40	27	32	63	25	37	100	73	91	5.6	1.0	146°	0.0
Monthly Avg.	37	25	30	65	23	35	97	64	85	4.7	0.9	119°	
Monthly Total													30.0
YTD ¹ Avg.	33	21	26	59	19	31	97	64	85	4.5	0.8	103°	
YTD ¹ Total													39.6

¹ Year To Date
 Note: * Data Unavailable





ATLAS

WEATHERING SERVICES GROUP



Solar Radiation Summary

April 2018

Chennai, India

Latitude 12° 35' North, Longitude 79° 48' East, Elevation 45 (m)

AWSG Solar Radiation Summary			
Month	Total Solar Radiation (MJ/m ²)	Ultraviolet Solar Radiation (MJ/m ²)	
April	Direct	295-385 nm	300-400 nm
Day	5°	5°	
1	19.5	0.95	1.24
2	18.3	0.94	1.23
3	21.8	1.10	1.43
4	22.8	1.18	1.54
5	22.6	1.18	1.55
6	23.3	1.19	1.57
7	22.8	1.20	1.57
8	22.3	1.26	1.64
9	22.8	1.26	1.65
10	18.0	1.17	1.54
11	20.3	1.47	1.93
12	25.5	1.76	2.30
13	22.2	1.61	2.11
14	22.2	1.59	2.08
15	21.7	1.64	2.15
16	24.0	1.69	2.21
17	21.7	1.56	2.05
18	25.2	1.71	2.23
19	23.1	1.56	2.04
20	23.8	1.56	2.04
21	22.9	1.51	1.98
22	23.9	1.55	2.03
23	25.1	1.64	2.15
24	24.4	1.35	1.77
25	23.5	1.15	1.51
26	21.7	1.06	1.39
27	23.4	1.18	1.54
28	22.8	1.16	1.53
29	24.7	1.18	1.55
30	23.1	1.09	1.43
Monthly Total	679.1	40.40	52.95
YTD¹ Total	2480.8	131.89	172.84

¹ Year To Date Total Solar Radiation - (290-3000nm)

Note:

